

**Test Report**
**No.:** TSNPC25001663701

**Date:** May 19, 2025

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Client Name: SHENZHEN ESUN INDUSTRIAL CO.,LTD.

Client Address: 15A, MICROSOFT KETONG BUILDING, NO. 55 GAOXINNAN 9TH ROAD, HIGH TECH COMMUNITY, YUEHAI STREET, NANSHAN DISTRICT, SHENZHEN

Sample Name: PLA+

 The above sample(s) and information were provided by the client.
 

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SGS Job No.: TJPC2505000212(WHIN2505000449PL01)

Sample Receiving Date: May 09, 2025

Testing Period: May 09, 2025 ~ May 16, 2025

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
EN 71-3:2019+A1:2021- Migration of certain elements (Category I:for dry, brittle, powder-like or pliable toy material)	Pass
ASTM F963-23, Clause 4.3.5.2 – Total Lead in Substrate Materials	Pass
ASTM F963-23, Clause 4.3.5.2 – Soluble Heavy Metal in Substrate Materials	Pass
CPSIA section 101(a)(2) - Lead in accessible substrate materials	Pass
CONSUMER PRODUCT SAFETY COMMISSION-16 CFR Part 1307, Final Rule, amending CPSIA section 108, Prohibition on Sale of Certain Products Containing Specified Phthalates	Pass

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**Test Result(s):**
**Test Part Description:**

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	TSN25-0016637-0001.C001	white solid

**Remarks:**

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

**EN 71-3:2019+A1:2021- Migration of certain elements (Category I:for dry, brittle, powder-like or pliable toy material)**
**Test Method:** With reference to EN 71-3:2019+A1:2021, analysis was performed by ICP-MS, IC-UV, LC-ICP-MS or IC-ICP-MS.

Test Item(s)	Limit	Unit(s)	MDL	A1
Mass of trace amount	-	mg	-	/
Soluble Aluminum(Al)	2250	mg/kg	50	ND
Soluble Antimony(Sb)	45	mg/kg	1	ND
Soluble Arsenic(As)	3.8	mg/kg	0.5	ND
Soluble Barium(Ba)	1500	mg/kg	50	ND
Soluble Boron(B)	1200	mg/kg	50	ND
Soluble Cadmium(Cd)	1.3	mg/kg	0.1	ND
Soluble Chromium(III)(CrIII)	37.5	mg/kg	5.0	ND
Soluble Chromium(VI)(Cr VI)	0.02	mg/kg	0.010	ND
Soluble Cobalt(Co)	10.5	mg/kg	0.5	ND
Soluble Copper(Cu)	622.5	mg/kg	50.0	ND
Soluble Lead(Pb)	2.0	mg/kg	0.5	ND
Soluble Manganese(Mn)	1200	mg/kg	50	ND
Soluble Mercury(Hg)	7.5	mg/kg	0.5	ND
Soluble Nickel(Ni)	75	mg/kg	10	ND
Soluble Selenium(Se)	37.5	mg/kg	5.0	ND
Soluble Strontium(Sr)	4500	mg/kg	50	ND
Soluble Tin(Sn)	15000	mg/kg	0.15	ND
Soluble Zinc(Zn)	3750	mg/kg	50	ND
Soluble Organic Tin*	0.9	mg/kg	-	ND
<b>Conclusion</b>				<b>Pass</b>

**Notes:**

(1) According to Chapter of 10.1.2 of EN 71-3:2019+A1:2021, Chromium (III) is calculated by the following formula:

Soluble Chromium (III) = Soluble Total Chromium - Soluble Chromium (VI)

(2) \*Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirement as specified in EN 71-3:2019+A1:2021.

(3) /=Not Applicable

**ASTM F963-23, Clause 4.3.5.2 – Total Lead in Substrate Materials**

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**Test Method:** With reference to CPSC-CH-E1002-08.3. analysis was performed by AAS/ICP-OES.

Test Item(s)	Limit	Unit(s)	MDL	A1
Total Lead (Pb)	100	mg/kg	20	ND
<b>Conclusion</b>				<b>Pass</b>

**ASTM F963-23, Clause 4.3.5.2 – Soluble Heavy Metal in Substrate Materials**
**Test Method:** With reference to ASTM F 963-23 (Clause 8.3), analysis was performed by ICP-OES.

Test Item(s)	Limit	Unit(s)	MDL	A1
Soluble Mercury(Hg)	60	mg/kg	5	ND
Soluble Chromium(Cr)	60	mg/kg	5	ND
Soluble Cadmium(Cd)	75	mg/kg	5	ND
Soluble Barium(Ba)	1000	mg/kg	10	ND
Soluble Arsenic(As)	25	mg/kg	2.5	ND
Soluble Lead(Pb)	90	mg/kg	5	ND
Soluble Antimony(Sb)	60	mg/kg	5	ND
Soluble Selenium(Se)	500	mg/kg	10	ND
<b>Conclusion</b>				<b>Pass</b>

**Notes:**

(1) Results shown are of the adjusted analytical results.

**CPSIA section 101(a)(2) - Lead in accessible substrate materials**
**Test Method:** With reference to CPSC-CH-E1002-08.3, analysis was performed by AAS/ICP-OES.

Test Item(s)	Limit	Unit(s)	MDL	A1
Lead (Pb)	100	mg/kg	20	ND
<b>Conclusion</b>				<b>Pass</b>

**CONSUMER PRODUCT SAFETY COMMISSION-16 CFR Part 1307, Final Rule, amending CPSIA section 108, Prohibition on Sale of Certain Products Containing Specified Phthalates**
**Test Method:** With reference to CPSC-CH-C1001-09.4, analysis was performed by GC-MS.

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
Benzyl Butyl Phthalate (BBP)	85-68-7	0.1	%	0.0050	ND
Dibutyl Phthalate (DBP)	84-74-2	0.1	%	0.0050	ND
Dicyclohexyl Phthalates (DCHP)	84-61-7	0.1	%	0.0050	ND
Di(2-ethyl hexyl) Phthalate (DEHP)	117-81-7	0.1	%	0.0050	ND
Di-n-hexyl Phthalates (DHEXP/ DnHP)	84-75-3	0.1	%	0.0050	ND
Diisobutyl Phthalates (DIBP)	84-69-5	0.1	%	0.0050	ND
Diisononyl Phthalate (DINP)	28553-12-0 /68515-48-0	0.1	%	0.0050	ND
Dipentyl Phthalates (DnPP)	131-18-0	0.1	%	0.0050	ND

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Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
<b>Conclusion</b>					<b>Pass</b>

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) stated in ILAC-G8:09/2019.

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**Sample Photo:**



SGS authenticate the photo on original report only  
\*\*\* End of Report \*\*\*